Historical Floods: James River at Cartersville, Virginia

Latitude: 37.671 Period of Record: 1869-Present Longitude: -78.086
Flood Stage: 20 ft Last Flood: 5/16/2014 Number of Floods: 85

| Date of Flood | Crest (ft) | Streamflow (cfs) | Category | Code |
|---------------|------------|------------------|----------|-------|
| 11/1/1869 | 32.00 | -9,999 | Major | C1 C9 |
| 10/3/1877 | -9999.00 | -9,999 | Missing | C1 |
| 11/24/1877 | 30.40 | -9,999 | Major | C1 C8 |
| 3/6/1899 | 25.20 | 111,000 | Moderate | C1 |
| 5/23/1901 | 27.00 | 134,000 | Major | C1 |
| 12/30/1901 | 26.70 | 130,000 | Major | C1 |
| 6/7/1903 | 22.00 | 82,800 | Minor | C1 |
| 10/21/1906 | 23.80 | 97,200 | Moderate | C1 |
| 6/17/1910 | 20.30 | 72,000 | Minor | C1 |
| 5/13/1912 | 22.50 | 86,400 | Minor | C1 |
| 3/29/1913 | 23.40 | 93,600 | Moderate | C1 |
| 2/4/1915 | 20.60 | 69,300 | Minor | C1 |
| 1/4/1919 | 23.00 | 82,900 | Moderate | C1 |
| 2/4/1920 | 20.20 | 67,300 | Minor | C1 |
| 5/13/1924 | 24.70 | 106,000 | Moderate | C1 |
| 10/1/1924 | 24.38 | 103,000 | Moderate | C1 |
| 8/12/1928 | 22.06 | 78,600 | Minor | none |
| 8/18/1928 | 23.80 | 97,200 | Moderate | none |
| 10/18/1932 | 21.54 | 75,400 | Minor | none |
| 4/18/1933 | 20.48 | 70,600 | Minor | none |
| 12/2/1934 | 24.95 | 104,000 | Moderate | none |

Drainage Area: 6252 sq mi Gage Datum: 163.9 ft MSL

James Basin

County of Gage: Goochland County of Forecast Point: Cumberland

Historical Floods: James River at Cartersville, Virginia

Latitude: 37.671 Period of Record: 1869-Present Longitude: -78.086
Flood Stage: 20 ft Last Flood: 5/16/2014 Number of Floods: 85

| Date of Flood | Crest (ft) | Streamflow (cfs) | Category | Code |
|---------------|------------|------------------|----------|------|
| 3/14/1963 | 21.33 | 78,000 | Minor | none |
| 8/21/1969 | 33.75 | 250,000 | Major | none |
| 6/1/1971 | 21.51 | 79,400 | Minor | none |
| 6/22/1972 | 37.87 | 362,000 | Major | none |
| 10/6/1972 | 27.12 | 131,000 | Major | none |
| 2/3/1973 | 20.67 | 74,200 | Minor | none |
| 12/29/1973 | 20.89 | 75,500 | Minor | none |
| 3/20/1975 | 26.04 | 120,000 | Moderate | none |
| 10/10/1976 | 20.60 | 73,900 | Minor | none |
| 1/27/1978 | 25.08 | 109,000 | Moderate | none |
| 2/26/1979 | 26.33 | 123,000 | Moderate | none |
| 6/4/1979 | 24.19 | 100,000 | Moderate | none |
| 9/23/1979 | 21.86 | 82,700 | Minor | none |
| 6/15/1982 | 20.91 | 76,000 | Minor | none |
| 4/11/1983 | 20.26 | 71,900 | Minor | none |
| 2/16/1984 | 22.42 | 86,800 | Minor | none |
| 3/30/1984 | 21.62 | 81,000 | Minor | none |
| 11/6/1985 | 32.60 | 225,000 | Major | none |
| 4/18/1987 | 27.96 | 142,000 | Major | none |
| 4/26/1987 | 21.25 | 78,100 | Minor | none |
| 9/9/1987 | 25.44 | 114,000 | Moderate | none |

Drainage Area: 6252 sq mi Gage Datum: 163.9 ft MSL

James Basin

County of Gage: Goochland County of Forecast Point: Cumberland

Historical Floods: James River at Cartersville, Virginia

Latitude: 37.671 Period of Record: 1869-Present Longitude: -78.086

Flood Stage: 20 ft Last Flood: 5/16/2014 Number of Floods: 85

| Date of Flood | Crest (ft) | Streamflow (cfs) | Category | Code |
|---------------|------------|------------------|----------|------|
| 5/16/2014 | 20.50 | 73,500 | Minor | none |

-9999 signifies missing data

Code Description

MARFC Codes

| C1 | Crest information looks unreliable and incomplete and not used in frequency calculations. Some of the floods are based on current flood stage and |
|----|---|
| | nearby gage information. |

- C2 Crest information looks reliable despite potential problems. This data was used in frequency calculations.
- C3 Crest height estimated by the USGS.
- C4 Crest height is from the National Weather Service.
- C5 Crest height affected by backwater.
- Cf Crest occurred at a previous flood stage that is lower than the current flood stage. The crests below the new flood stage are not used in flood frequency calculations.
- Crest from USGS yearly peak and/or date is different than the crest we provide. In many cases MARFC uses crest based on backwater or ice effects.

 Crest month or day of occurrence has been estimated by The Middle Atlantic River Forecast Center usually based on nearby gage information.
- C8 Crest date (day) in the month is unknown.
- C9 Flow is an estimate.
- F1 Flow affected by regulation or diversion and in some cases to an unknown degree.
- F2 Flow effected by snow-melt, ice jam or debris jam break up.
- F3 Flow affected by dam failure.
- Flow All or part of the record affected by urbanization, mining, agricultural changes, channelization or other factors.
- F5 Gage height at a different site and/or datum.
- G1 Gage is not an official USGS gage with crests provided by the NWS. Crest information looks unreliable and incomplete and not used in flood frequency
- G2 calculations.

Gago datum changed during this year

Drainage Area: 6252 sq mi

Gage Datum: 163.9 ft MSL

County of Gage: Goochland

County of Forecast Point: Cumberland

Created: 3/18/2016 1:53:53 PM Page 3 of 3